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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,714	11/21/2003	Arihiro Takeda	2803.68147	3416

7590 11/16/2004  
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EXAMINER
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NGUYEN, DUNG T

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/719,714	<b>Applicant(s)</b> TAKEDA ET AL.	
	<b>Examiner</b> Dung Nguyen	<b>Art Unit</b> 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 August 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 150-240 is/are pending in the application.
- 4a) Of the above claim(s) 191 and 226 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 150-158, 181-185, 187-190, 192, 194, 200-204, 207-213, 219-225 and 227 is/are rejected.
- 7) ☒ Claim(s) 159-180, 186, 193, 195-199, 205, 206, 214-218 and 228-240 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/097,027.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/03, 7/6/04, 7/12.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Applicants' election with traverse of species A (claim 190) and species C (claims 224 and 227) in paper dated 08/20/2004 is acknowledged. The traversal is on the ground that there is no serious burden placed upon the Examiner to examine all four of identified species within the same application. This is not found persuasive because Applicant provides no evidence to support why they are not undue burden. In addition, Applicants have based the argument on his own definition of what constitutes a "serious burden" and not the definition provide in the MPEP, section 803; so as restriction for examination purposes as indicated is proper.

The requirement is still deemed and is therefore made FINAL.

#### ***Priority***

1. This application appears to be a division of Application No. 09/097,027, filed 06/12/1998. A later application for a distinct or independent invention, carved out of a pending application and disclosing and claiming only subject matter disclosed in an earlier or parent application is known as a divisional application or "division." The divisional application should set forth the portion of the earlier disclosure that is germane to the invention as claimed in the divisional application.

#### ***Specification***

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 150-158, 181-184, 185, 187-190, 192, 194, 200-203, 207-213, 221-222 and 225 are rejected under 35U.S.C. 103(a) as being unpatentable over Lien et al., US Patent No. 5,309,264, in view of Hirata et al., US Patent No. 5,953,093.

Regarding claims 150-158, 182-184, 187-190, 192, 194, 202, 208-211, 221-222 and 225, Lien et al. disclose a homeotropic liquid crystal display (LCD) device (figures 1 and 7) comprising:

- . a pair of substrates (22, 24);
- . a thin film transistor (TFT) (30);
- . first domain regulating means on the first substrate (cut out 11a/111b1) as claimed;
- . second domain regulating means on the second substrate (cut out 114a/114b/114c) as claimed;
- . a liquid crystal layer (36) having a negative dielectric constant anisotropy (col. 3, ln. 33), wherein liquid crystal molecules is substantially mirror symmetrically aligned (e.g., molecules in multi-domains aligned in a direction toward the center of the pixel) (see col. 4, ln. 26-27).

Lien et al, however, do not disclose the first/second domain regulating means including protrusions projected into the liquid crystal layer. Hirata et al. do disclose a protrusion to form a domain regulating means (figure 13). Therefore, it would have been obvious to one of ordinary skilled in the art at the time of the invention was made to form a protrusion instead of the Lien et al. cut-out or mutually forming to each other since all structures (i.e., protrusion, cut-out, depressions depressed) was formed to improve viewing angle characteristic in an LCD device (col. 1, ln. 50-52).

Regarding claims 185 and 200, the modification to the Lien et al. disclose the claimed invention as described above except for a light shielding. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to employ a light-shielding in an LCD device for the purposes of shielding a leaking light, so that improving the contrast of the LCD device.

Regarding claims 201, although the modification to Lien et al. does not disclose a color filter, it would have been obvious to one skilled in the art to form a color filter on one of the LCD substrate since it is a common practice in the art to obtain a color display.

Regarding claims 203, 207 and 212-213, the modification to the Lien et al. disclose the claimed invention as described above except for the based material for the domain regulating means (e.g., novolak resist, shield visible light, ion absorption). It would have been obvious to one skilled in the art at the time of the invention was made to form a domain regulating means (e.g., protrusion) by such material as novolak resist, shield visible light, ion absorption, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

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Note: claims 204, 219-220, 223-224 and 227 recite a one-step process which does not further limit the structure of the device claims. Therefore, the process limitation does not have patentable weight.

### *Allowable Subject Matter*

3. Claims 159-180, 186, 193, 195-199, 205-206, 214-218, 228-229, 230-240 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### *Conclusion*

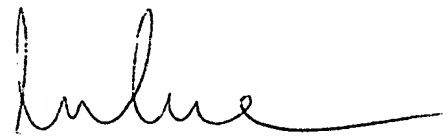
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 571-272-2297. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DN  
11/12/2004



**Dung Nguyen**  
**Primary Examiner**  
**Art Unit 2871**